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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/599,542	06/23/2000	Warren L. Braun	05380003AA	1198

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EXAMINER

TRAN, HAI V

ART UNIT	PAPER NUMBER
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2611

DATE MAILED: 03/12/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/599,542

Applicant(s)

BRAUN, WARREN L.

Examiner

Hai Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Regarding Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Regarding Claims 1-11 and 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortel (US 5712897) in view of Mori et al. (US 4320497).

Regarding Claim 1, Ortel reference discloses a broadband network having a communication path between a central facility, including a signal source (Fig. 1; el. 2-5, 206 and Fig. 5, el. Central Office) to a plurality of cable drops (Fig. 1 & Fig. 5, el. 204);

a condition detector (Fig. 5 with configuration at various cable drops locations A, B, C, D) at each of the plurality of cable drops (Col. 3, lines 39-45);

Ortel does not clearly disclose "means for providing a sequence of tones responsive to the condition detector"; "means for coupling the sequence of tones to the communication path during a time slot determined by a time base" and "means for decoding the sequence of tones at the central facility; However, Ortel discloses the central facility based on the upstream (M lead) generated by the control unit 903 determines faults at various location of the network (Col. 5, lines 35-Col. 6, lines 7).

Mori discloses Col. 5, lines 25-Col. 6, lines 40; means (Fig. 1; el. 26) for providing a sequence of tones responsive to the condition detector; means (Fig. 1;

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el. 24) for coupling the sequence of tones to the communication path during a time slot determined by a time base and means (Fig. 1; el. 2) for decoding the sequence of tones at the central facility.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ortel with Mori for testing communication path of an electronic exchange which has at least a pair of time-sharing communication highway and a plurality of port circuits which are connected to one another in time-sharing fashion through the first and second communication highways.

Regarding Claim 2, Mori further discloses wherein the means for providing the sequence of tones provides a sequence of tone pairs (Col. 5, lines 40-Col. 6, lines 20).

Regarding Claim 3, Ortel further discloses wherein the means for decoding provides a digital signal input to printer (Fig.3, element 303; Col. 4, lines 49-53).

Regarding Claim 4, Ortel further discloses wherein the condition detector detects at least one of power outage and ingress (the system must detects noise in order to perform the function as disclosed; Col.3, lines 54-58).

Regarding Claim 5, Ortel further discloses wherein the system is divided into a plurality of sectors (Col. 5, lines 45; Col. 4, lines 38-41).

Regarding Claim 6, Ortel in view of Mori discloses wherein the time base is provided at a directional coupler providing communication links to a plurality of the

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cable drop (Ortel must have a directional coupler in order to function as disclosed; Fig.5; Col. 5, lines 35-65+).

Regarding Claims 7 and 8, regarding a counter for counting time slots and a comparator responsive to the counter for identifying time slots corresponding to respective ones of the plurality of cable drops, Ortel discloses a time base (TDM) in which requires a time out to determine a fault and have a comparator to compare between the a time out and the noisy condition of the network so to determine respective fault at one of the plurality of cable drops as disclosed (Col. 5, lines 35-Col. 6, lines 7). Thus Ortel's system encompasses those claimed limitation.

Regarding Claim 9, Ortel (Col. 3, lines 39-Col. 4, lines 17) in view of Mori further discloses means for latching an output of the condition detector and wherein the comparator is responsive to an output of the means for latching and the counter for controlling the means for generating the sequence of tones.

Regarding Claim 10, see above analysis of Regarding Claims 6-8.

Regarding Claim 11, see analysis of Regarding Claims 7 and 8.

Regarding Claim 14, regarding the means for synchronizing the counter with the means for counting time slots at the central facility, Ortel's system shows a comparator to compare between the time out and the noisy condition of the network so to determine respective fault at one of the plurality of cable drops as disclosed (Col. 5, lines 35- Col. 6, lines 7). Thus, by comparing the time out, Ortel system is synchronizing the counter for counting the time slots so to detect fault.

Regarding Claims 15-17, Ortel system in view of Mori must stores power for operation of condition detector by providing sequences of tones as discussed from the previous Regarding Claims and modulate the carrier signal in the CATV environment in which the carrier signal of approximately 25Khz is notoriously well known in the art.

Regarding Claims 18-23 are met by that discussed above.

2. Regarding Claims 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ortel (US 5712897) in view of Mori et al. (US 4320497) and further in view of Cheng (US 5,563,883).

Regarding Claim 12, Ortel does not clearly disclose means for controlling polling frequency of the cable drops.

Cheng discloses a two-way multi-media communication services which controls the polling frequency of the cable drops (Col. 2, lines 35-60). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Ortel by controlling the polling process, as taught by Cheng, so to solicit request from all terminals assigned to the signaling data channel (Col. 2, lines 55-58).

Regarding Claim 13, Cheng further discloses the step of resetting the system Fig. 4.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

McAlear (US 6598232) shows Hybrid amplifier-regenerator for optimizing cable network transmissions.

Evans et al (US 6069947) shows Communication system architecture and operating protocol therefor.

Belerie et al.(US 5351234)shows System for integrated distribution of switched voice and television on coaxial cable.

Terry et al. (US 5499047) shows Distribution network comprising coax and optical fiber paths for transmission of television and additional signals.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Tran whose telephone number is 703-308-7372. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Faile can be reached on 703-305-4380. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HT:ht
03/05/2004

A handwritten signature in black ink, appearing to read "HAITRAN", with a horizontal line drawn underneath it.

HAITRAN
PATENT EXAMINER